



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/735,016	12/12/2003	Dennis G. Koshinz	81006 7400	2333
22242	7590	07/13/2005	EXAMINER	
FITCH EVEN TABIN AND FLANNERY 120 SOUTH LA SALLE STREET SUITE 1600 CHICAGO, IL 60603-3406			KIANNI, KAVEH C	
			ART UNIT	PAPER NUMBER
			2883	

DATE MAILED: 07/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/735,016

Applicant(s)

KOSHINZ ET AL.

Examiner

Kianni C. Kaveh

Art Unit

2883

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) 17-22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 17-22 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 5.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-16, drawn to a fiber optic device including a fiber core within the optical fiber having a fiber core cladding interface, classified in class 385, subclass 31.
- II. Claims 17-22, drawn to a method for attenuating the amount of light entering an optical fiber, classified in class 385, subclass 18.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the product as claimed can be used as an optical coupling unit in an optical communications between optical elements rather than as attenuation unit as claimed in invention II.

Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.

During a telephone conversation with Mr. Levens on 7/5/05 a provisional election was made without traverse to prosecute the invention of I, claims 1-16. Affirmation of this election must be made by applicant in replying to this Office action. Claims 17-22 withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Art Unit: 2883

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

### **Claim Rejections - 35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Art Unit: 2883

Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshimura et al. (US 5999670).

Regarding claims 1-4, 7, 9-12 and 15, Yoshimura teaches a fiber optic device (shown in at least figures 14 and 36-38) comprising: an/plurality optical fiber(s) 124; a fiber core 45a within each of the optical fiber(s) having a fiber core cladding interface (shown in at least fig. 14, item 6 with core and cladding interface); and an angled polished end surface on the optical fiber (s) (see at least fig. 14 and 36 and 38, item polished end surface(s) of fiber(s); see also at least examples 52-53 in col. 32-33), the polished end surface at an acute desired angle from a side of the fiber (see at least fig. 14, item 6; see at least col. 3, 6<sup>th</sup> parag.). Yoshimura further teach an active device 43 operationally coupled to the optical fiber(s) such that light from the active device by the polished surface is reflected into the fiber core 45a; and wherein the active device is a surface emitting laser/diode (see at least col. 2, line 55).

However, Yoshimura does not explicitly express the above desired angle is 'other than 45 degrees' and/or approximately 40 degrees, and that the above light is 'attenuated', and that the above surface emitting laser/diode is a vertical cavity surface emitting laser.

Nevertheless, Yoshimura also states such desired angle can be for example 44 degrees (see fig. 42, item angle 44 degrees) and/or 42.5 degrees (see at least example 37), and that the reflected light from the polished angle is smoothly with improved losses is transmitted through the fiber core (see at least col. 19, 2n-3<sup>rd</sup> parag.). Thus, it is obvious/well-known to those of ordinary skill in the art when the

Art Unit: 2883

invention was made that 44 degree angle is a desired angle 'other than 45 degrees' and set a desired angle to any angle such as 40 degrees as desired, and that transmitting light in an improved and low loss manner through a polished angled surface of light is/known as attenuation of light through the fiber core--which is analogous to the disclosed claimed invention in the specification— and use a conventional vertical cavity emitting laser as a surface emitting laser, since such device with the angle would drastically reduce propagation loss with highly accurate transmission function (see col. 3 lines 45-60).

Regarding claims 5-6, 8, 12-14 and 16, Yoshimura further teaches wherein the polished end surface is at an angle between approximately 39 and 45 degrees from a side of the fiber (see fig, 42, item 44 degrees angle); wherein the polished end surface is at an angle between approximately 45 and 51 degrees from a side of the fiber (see fig, 39, item 46.5 degrees angle); wherein the polished end surface is at an angle sufficient to avoid saturation of an opto-electronic receiver (see col. 15, lines 41-62).

#### ***Citation of Relevant Prior Art***

Prior art made of record and not relied upon is considered pertinent to applicant's disclosure. In accordance with MPEP 707.05 the following references are pertinent in rejection of this application since they provide substantially the same information disclosure as this patent does. These references are:

Kosemura 6330377 teaches claimed invention with angled end surface of fiber(s) in which light can be attenuated

Art Unit: 2883

Skinner et al. 20040120675 teaches claimed invention with angled end surface of fiber(s) in which light can be attenuated

Artjushenko et al. 5734765 teaches claimed invention

Bhagavatula et al. 6904197 teaches claimed invention

Tabuchi 5764832 teaches claimed invention

Miao et al. 20050053334 teaches at least claim 1 including Vertical Cavity Surface Emitting Laser

Chan et al. 20030235366 teaches at least claim 1 including Vertical Cavity Surface Emitting Laser

These references are cited herein to show the relevance of the apparatus/methods taught within these references as prior art.

#### ***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to K. Cyrus Kianni whose telephone number is (571) 272-2417.

The examiner can normally be reached on Monday through Friday from 8:30 a.m. to 6:00 p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank Font, can be reached at (571) 272-2415.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**or faxed to:**

(703) 872-9306 (for formal communications intended for entry)

**or:**

Hand delivered responses should be brought to Crystal Plaza 4, 2021 South Clark Place, Arlington, VA., Fourth Floor (Receptionist).

Art Unit: 2883

Any inquiry of a general nature or relating to the status of this application should be directed to the Group Receptionist whose telephone number is (703) 308-0956.

A handwritten signature in black ink, appearing to read 'K. Cyrus Kianni', with a long horizontal flourish extending to the right.

K. Cyrus Kianni  
Primary Patent Examiner  
Group Art Unit 2883

July 6, 2005